What is claimed is:

1. In a gene delivery system comprising a nucleotide sequence of interest to be delivered into a cell, the improvement which comprises a relaxin-encoding nucleotide sequence to enhance a transduction efficiency of the nucleotide sequence of interest into the cell.

2. The gene delivery system according to claim 1, wherein the cell is a cell in a tissue composed of cells interconnected each other by an extracelluar matrix.

3. The gene delivery system according to claim 2, wherein the tissue is a tumor tissue.

4. The gene delivery system according to claim 1, wherein the gene delivery system is a plasmid, a recombinant adenovirus, adeno-associated virus (AAV), retrovirus, lentivirus, herpes simplex virus, vaccinia virus, a liposome or a neosome.

5. The gene delivery system according to claim 4, wherein the gene delivery system is a recombinant adenovirus.

6. The gene delivery system according to claim 1, wherein the recombinant adenovirus comprises a deleted E3 region and the relaxin-encoding nucleotide sequence is inserted into the deleted E3 region.

7. A method for delivering a gene into cells, which comprises

contacting the gene delivery system according to any one of claims 1-6 to a biosample containing cells.

8. A recombinant adenovirus, which comprises an adenoviral ITR (inverted terminal repeat) nucleotide sequence and a relaxin-encoding nucleotide sequence; wherein a relaxin protein expressed enhances a penetration potency of the recombinant adenovirus into a tumor tissue and apoptosis of a tumor cell infected with the recombinant adenovirus.

9. The recombinant adenovirus according to claim 8, wherein the recombinant adenovirus comprises a deleted E3 region and the relaxin-encoding nucleotide sequence is inserted into the deleted E3 region.

10. The recombinant adenovirus according to claim 8, wherein the recombinant adenovirus comprises an inactivated E1B 19 gene, an inactivated E1B 55 gene or an inactivated E1B 19/E1B 55 gene.

11. The recombinant adenovirus according to claim 8, wherein the recombinant adenovirus comprises an active E1A gene.

12. A pharmaceutical anti-tumor composition for treating a cancer, which comprises (a) a therapeutically effective amount of the recombinant adenovirus according to any one of claims 8-11; and (b) a pharmaceutically acceptable carrier.

13. A method for treating a cancer, which comprises administering to an animal the pharmaceutical anti-tumor

composition of claim 12.

14. A pharmaceutical composition for improving a penetration potency of a medicament into a tissue, which comprises (a) a relaxin protein to improve the penetration potency of the pharmaceutical composition into the tissue; and (b) a pharmaceutically acceptable carrier.

15. A pharmaceutical composition for treating a disease or condition associated with accumulation of excess extracellular matrix, which comprises (a) a therapeutically effective amount of a relaxin protein or a gene delivery system comprising a relaxin-encoding nucleotide sequence; and (b) a pharmaceutically acceptable carrier.

16. The pharmaceutical composition according to claim 15, wherein the a disease or condition associated with accumulation of excess extracellular matrix is scar, liver cirrhosis, pulmonary fibrosis, glomerular nephritis, adult or acute dyspnea, hepatic fibrosis, renal fibrosis, mycocardial fibrogenesis following myocardial infarction, fibrocystic disorder, fibrotic cancer, veno-occlusive syndrome or renal stroma fibrosis.